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Accordingly, no new matter has been added by these amendments nor do these amendments raise new issues or necessitate the undertaking of any additional search of the art by the Examiner. Therefore, this Amendment under 37 C.F.R. § 1.116 should allow for immediate action. The proposed amendments, moreover, place the claims in condition for allowance or, at least, in better form for appeal, if necessary.

**I. Status of Claims**

Claims 1-77 are pending in this application. Claims 1-36, 40, 42, 44-46, 50-57, 59, 64, and 65 have been withdrawn by the Examiner.

**II. Specification**

Applicants have amended the specification by adding a drawing (Figure 1) and a description of the drawing.

**III. Rejection under 35 U.S.C. § 102(b)**

A rejection under § 102 is only proper when the claimed subject matter is identically described or disclosed in the prior art. *See In re Arkley*, 455 F.2d 586, 587 (CCPA 1972); *see also* M.P.E.P. § 706.02(a) ("For anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly.").

**Williams**

Claims 37, 39, 41, 43, 47-49, 58, 69-71, and 73-77 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,679,344 ("*Williams*") for the reasons set forth on page 3 of the present Office Action. Applicants respectfully traverse this rejection.

As stated in the previous Amendment, *Williams* does not teach, either explicitly or impliedly, a heat-activated composition for protecting or repairing at least one keratinous fiber according to the present invention.

The Examiner has refused to give patentable weight to "wherein said composition is heat-activated." Office Action at p. 3. Moreover, the Examiner appears to treat all compositions comprising glucosamine equally, by stating that, "[t]he process of heating the composition to above 80°C or 100°C does not change the fact that the only limitation on the composition is that it comprises glucosamine." *Id.*

Applicants respectfully disagree that any composition comprising glucosamine would necessary be equal to a heat-activated composition. If anything, *Williams* explicitly teaches that not all glucosamine-containing compositions are equal.

Thus, while compositions are available which utilize glucosamines for treatment of articular disorders, it is found that they are not immediately effective and in some instances must be given for periods of months before they can exercise their desired effect.

Col. 1, lines 26-30. To improve the effectiveness of a glucosamine-containing compositions over prior art compositions, *Williams* teaches adding an anti-inflammatory proteolytic composition.

Applicants' invention relates to a different approach -- a heat-activated composition comprising at least one compound comprising at least one C<sub>5</sub> to C<sub>7</sub> saccharide unit substituted with at least one amino group. The specification describes many examples where heat-activated compositions are effective in reducing damage to keratinous fibers. The same effect is not seen in compositions that are not heat-activated. From the teachings of *Williams* that many glucosamine solutions are not

adequately effective, one of ordinary skill in the art would recognize that heat-activation results in a different composition than a nonheat-activated composition. Thus, the Examiner should give patentable weight to "heat-activated." Because *Williams* fails to teach heat-activation, *Williams* does not anticipate the present claims.

Accordingly, for at least this reason, Applicants respectfully request withdrawal of this rejection.

**Noel**

Claims 37, 39, 41, 43, 47-49, 58, 60-61, 63, 68-71, and 73-77 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,141,964 ("*Noel*") for the reasons set forth on page 4 of the present Office Action. Applicants respectfully traverse this rejection.

As stated in the previous Amendment, *Noel* does not teach, either explicitly or impliedly, a heat-activated composition for protecting or repairing at least one keratinous fiber according to the present invention. Again, the Examiner refused to give patentable weight to "wherein said composition is heat-activated."

As discussed above, the mere use of a glucosamine does not necessarily result in a composition for protecting or repairing at least one keratinous fiber, as claimed. *Noel* teaches adding the at least one acid selected from the group consisting of succinic acid and gluconic acid to improve the moisturizing properties of the *Noel* compositions. Like *Williams*, *Noel*, teaches that additional modifications to glucosamine-containing compositions are required for improved effectiveness. Again, Applicants' invention improves on prior art compositions by heat-activation. Thus, the Examiner should give

patentable weight to "heat-activated." Because *Noel* fails to teach heat-activation, *Noel* does not anticipate the present claims.

Accordingly, for at least this reason, Applicants respectfully request withdrawal of this rejection.

**Heisey**

Claims 37-39, 41, 43, 47-49, 58, 60-63, and 66-72 have been rejected under 35 U.S.C. § 102(e) as being anticipated by WO 01/93831 ("*Heisey*") for the reasons set forth on page 5 of the present Office Action. Applicants respectfully traverse this rejection.

Applicants submit that *Heisey* is not a proper reference under § 102(e). As codified in the Intellectual Property and High Technology Technical Amendments Act of 2002 (H.R. 2215), a publication issuing from an international application is applicable as a § 102(e) reference "only if the international application designated the United States and was published ... in the English language." (Added emphasis).

On the face of *Heisey*, the U.S. is not a designated state. Thus, *Heisey* cannot be cited as a § 102(e) reference.

Moreover, because *Heisey* published on December 13, 2001, which falls after the filing date of the present application, *Heisey* is not applicable as a 102(a) or 102(b) reference.

Accordingly, for at least this reason, Applicants respectfully request withdrawal of this rejection.

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**IV. Rejection under 35 U.S.C. § 103**

Claims 37, 39, 41, 43, 47-49, 58, 60-63, and 66-77 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 01/93831 ("*Heisey*") for the reasons set forth on pages 5-6 of the present Office Action. Applicants respectfully traverse this rejection.

As discussed above, *Heisey* is not a proper reference under 35 U.S.C. §§ 102(e), 102(a), or 102(b). Thus, *Heisey* has no basis as a reference under 35 U.S.C. § 103.

Thus, for at least this reason, Applicants respectfully request withdrawal of this rejection.

**V. Conclusion**

Applicants respectfully request the reconsideration and the timely allowance of the pending claims. Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Date: March 25, 2003

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